

What is claimed is:

1. A graft copolymer composition comprising:

a lubricant including at least one of fatty acid amides and an alkylene oxide derivative; and

a graft copolymer as the main component, the graft copolymer having a multi-phase structure in which particles of a first polymer segment are dispersed in a second polymer segment, with the diameter of the particles being 0.001 to 10 μm , wherein:

the first polymer segment is one of an olefin polymer segment (a) and a vinyl polymer segment (b), while the second polymer segment is the other one of the olefin polymer segment (a) and the vinyl polymer segment (b), and

the vinyl polymer segment (b) is formed from at least one of vinyl monomer selected from the group consisting of (meth)acrylic acid, (meth)acrylic alkyl ester, glycidyl (meth)acrylate and hydroxyl group-containing vinyl monomers.

2. The graft copolymer composition according to claim 1, wherein the amount of the lubricant is 1 to 50% by weight and the amount of the graft copolymer is 50 to 99% by weight.

3. The graft copolymer composition according to claim 1 or 2, wherein the graft copolymer is obtained by:

suspending an olefin polymer in water to prepare a suspension containing particles of the olefin polymer;

adding a solution containing a vinyl monomer, a radical polymerizable organic peroxide and a radical polymerization initiator to the suspension;

immersing the vinyl monomer, radical polymerizable

organic peroxide and radical polymerization initiator in the particles of the olefin polymer;

copolymerizing the vinyl monomer and the radical polymerizable organic peroxide within the particles of the olefin polymer to synthesize a precursor; and

melting and mixing the precursor.

4. The graft copolymer composition according to claim 3, wherein the melting of the precursor is carried out at 120 to 250°C.

5. A thermoplastic resin composition comprising:

an olefin thermoplastic resin as the main components; and

a graft copolymer composition, wherein said graft copolymer composition contains:

a lubricant including at least one of fatty acid amides and an alkylene oxide derivative; and

a graft copolymer as the main component, the graft copolymer having a multi-phase structure in which particles of a first polymer segment are dispersed in a second polymer segment, with the diameter of the particles being 0.001 to 10 μm , wherein:

the first polymer segment is one of an olefin polymer segment (a) or a vinyl polymer segment (b), while the second polymer segment is the other one of the olefin polymer segment (a) and the vinyl polymer segment (b), and the vinyl polymer segment (b) is formed from at least one of vinyl monomer selected from the group consisting of (meth)acrylic acid, (meth)acrylic alkyl ester, glycidyl (meth)acrylate and hydroxyl group-containing vinyl monomers.

6. The thermoplastic resin composition according to claim 5, wherein the amount of the olefin thermoplastic resin is 50 to 99.5 parts by weight and the amount of the graft copolymer composition is 0.5 to 50 parts by weight.

7. The thermoplastic resin composition according to claim 5, wherein the amount of the lubricant is 1 to 50% by weight and the amount of the graft copolymer is 50 to 99% by weight.

8. A molding of a graft copolymer composition, wherein the graft copolymer composition contains:

a lubricant including at least one of fatty acid amides and an alkylene oxide derivative; and

a graft copolymer as the main component, the graft copolymer having a multi-phase structure in which particles of a first polymer segment are dispersed in a second polymer segment, with the diameter of the particles being 0.001 to 10 μm , wherein the first polymer segment is one of an olefin polymer segment (a) and a vinyl polymer segment (b), while the second polymer segment is the other one of the olefin polymer segment (a) and the vinyl polymer segment (b), and wherein the vinyl polymer segment (b) is formed from at least one of vinyl monomer selected from the group consisting of (meth)acrylic acid, (meth)acrylic alkyl ester, glycidyl (meth)acrylate and hydroxyl group-containing vinyl monomers.

9. The molding according to claim 8, wherein the amount of the lubricant is 1 to 50% by weight and the amount of the graft copolymer is 50 to 99% by weight.

10. A molding made from a thermoplastic resin composition,

wherein the thermoplastic resin composition contains an olefin thermoplastic resin as the main component and a graft copolymer composition, wherein the graft copolymer composition contains:

a lubricant including at least one of fatty acid amides and an alkylene oxide derivative; and

a graft copolymer as the main component, the graft copolymer having a multi-phase structure in which particles of a first polymer segment are dispersed in a second polymer segment, with the diameter of the particles being 0.001 to 10 μm , wherein the first polymer segment is one of an olefin polymer segment (a) and a vinyl polymer segment (b), while the second polymer segment is the other one of the olefin polymer segment (a) and the vinyl polymer segment (b), and wherein the vinyl polymer segment (b) is formed from at least one of vinyl monomer selected from the group consisting of (meth)acrylic acid, (meth)acrylic alkyl ester, glycidyl (meth)acrylate and hydroxyl group-containing vinyl monomers.

11. The molding according to claim 10, wherein the amount of the olefin thermoplastic resin is 50 to 99.5 parts by weight and the amount of the graft copolymer composition is 0.5 to 50 parts by weight.

12. The molding according to claim 10, wherein the amount of the lubricant is 1 to 50% by weight and the amount of the graft copolymer is 50 to 99% by weight.

13. A process for producing a graft copolymer composition, the method comprising:

suspending an olefin polymer in water to prepare a suspension containing particles of the olefin polymer,

adding a solution containing a vinyl monomer, radical polymerizable organic peroxide and radical polymerization initiator to the suspension;

immersing the vinyl monomer, a radical polymerizable organic peroxide and a radical polymerization initiator in the particles of the olefin polymer;

copolymerizing the vinyl monomer and the radical polymerizable organic peroxide within the particles of the olefin polymer to synthesize a precursor; and

melting and mixing the precursor.